

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed February 6, 2006. For the reasons discussed below, Applicants submit that all pending claims are patentably distinguishable over the cited references. Applicants, therefore, respectfully request reconsideration and favorable action in this case.

Response to Claim Objections

The Examiner has advised that should claims 19-36 and 57 be found allowable, claims 37-54 and 58 will be objected to under 37 CFR 1.75 as being substantial duplicates of Claims 19-36 and 57, respectively. The Examiner argues that Claims 37-54 and 58 are substantial duplicates of claims 19-36 and 57 because logic encoded in media is the only means disclosed in the specification. Applicants traverse the Examiner's position. Even assuming, only for the sake of argument, that the Examiner's characterization of the specification is accurate, MPEP § 706.03(k) states that "court decisions have confirmed applicant's right to restate (i.e., by plural claiming) the invention in a reasonable number of ways. Indeed, a mere difference in scope between claims has been held to be enough." Means plus function claims provide a difference in scope than system claims, at least because they literally cover "the corresponding structure, material, or acts described in the specification *and equivalents thereof* [emphasis added]." 35 USC §112, paragraph 6. Therefore, Applicants respectfully submit that Claims 37-54 and 58 are not substantial duplicates of Claims 19-36 and 57.

Section 103 Rejections

The Examiner rejects Claims 1-5, 7, 9-13, 15-23, 25, 27-31, 33-41, 43, 45-49, and 51-58 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,658,000 issued to Raciborski, et al. ("*Raciborski*") in view of U.S. Patent No. 6,526,041 to Shaffer, et al. ("*Shaffer*"). Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, three requirements must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge available to one skilled in the art, to modify a reference or combine multiple references; (2) there must be a reasonable expectation of success; and (3) the prior

art reference (or combination of references) must teach or suggest all of the claim limitations. M.P.E.P. § 2143. In the present case, a *prima facie* case of obviousness cannot be maintained at least because the cited references whether considered singly, in combination with one another, or in combination with information generally available to those of ordinary skill in the art at the time of the invention, fail to disclose all of the elements of the pending claims. In addition, there is no suggestion or motivation to combine the cited references.

Independent Claim 1 recites the following:

A method for providing an audio stream in a voice over Internet Protocol (VoIP) environment, comprising:
determining a quality value for each of a plurality of audio streams communicated in a VoIP format;
selecting one of the audio streams based on the quality values for the audio streams; and
facilitating playing of the selected audio stream to a call on hold.

Claim 1 is allowable because neither *Raciborski* nor *Shaffer* disclose, teach, or suggest each and every one of the elements of Claim 1.

Raciborski discloses a system for improving quality of service (QOS) when a client computer downloads a content object, including audio information, from a network. *See* Column 2, lines 55-56; Column 3, 15-17; FIGURE 1. Before downloading any content, the client computer interrogates content object sources, including origin servers and content exchanges, to evaluate the QOS of the paths between the client computer and each content object source. *See* Column 15, lines 55-57; Column 18, lines 28-34; Column 19, lines 18-24 and 36-54. Path QOS evaluation can include network analysis methodologies such as ping, path difference, and port response time. *See* Column 20, lines 35-40. After the client computer evaluates path QOSs, the client computer stores a QOS factor for each path in its memory. *See* Column 24, lines 1-3. The client computer then prioritizes the content object sources based upon their QOS factor and chooses, ranks, and stores a predetermined number of content object sources as preference information. *See* Column 18, lines 32-35; Column 24, lines 1-16. Preference information includes a list of content object sources which the client computer determines provide sufficient QOS. *See* Column 24, lines 17-20.

In order to download a content object, a user at a client computer, interacting with an active directory, first requests a content object. *See* Column 3, lines 11-13. The request, as well as the stored content source preference information, is forwarded to an origin server, the source of the requested content object. *See* Column 3, lines 17-19 and lines 43-44. Based in part on the preference information, the origin server determines the preferred content object source, including the origin server itself or a content exchange, to direct the client computer to in order to download the content object. *See* Column 3, lines 56-63. The client computer is directed to the preferred content object source and downloads the requested content object from that source. *See* Column 2, lines 59-62; Column 3, lines 21-23.

Shaffer discloses a music-on-hold system that is responsible for providing music or audio to callers that are on hold. *See* Column 3, lines 55-57. *Shaffer's* music-on-hold system is able to dynamically determine the bandwidth requirements for providing music to a caller and use only the necessary amount of bandwidth to provide music on hold to callers. *See* Column 2, lines 43-48. Bandwidth is preserved by playing music files and media player files at a client instead of at a server. *See* Column 2, lines 51-53.

The combination of *Raciborski* and *Shaffer* does not disclose each and every element of Claim 1. For example, neither reference discloses “selecting one of the audio streams based on the quality values for the audio streams,” as recited in Claim 1. The audio streams in this second element of Claim 1 are the audio streams of the first element of Claim 1, “determining a quality value for each of a plurality of audio streams communicated in a VoIP format.” The Examiner argues that the second element of Claim 1 is disclosed in *Raciborski* at Column 3, lines 19-23, where *Raciborski* discloses that the origin server decides from what content object source the client computer will download the requested object based in part on the client computer's preference information. *See* Office Action, p.3. Applicants respectfully traverse the Examiner's position. The presumed “streams” that are used by the client computer to evaluate path QOSs in order to generate content source preference information do not include the “stream” that will actually provide the content object to the client computer (i.e., the stream that is played to a call on hold). *See* Column 15, lines 55-57; Column 18, lines 28-34; Column 19, lines 18-24 and 36-54; Column 20, lines 35-40. “Quality values” are never determined in *Raciborski* for this “stream” of content received by the client. In addition, *Raciborski's* origin server is choosing among content object sources to

deliver content based on the interrogation of the content sources; it is not choosing among streams of actual content that is to be played to a call on hold. No content stream has yet been provided when *Raciborski*'s origin server decides among the content object sources. Column 3, lines 21-23. Thus, the origin server in *Raciborski* is not "selecting one of the audio streams based on the quality values for the audio streams," as recited in Claim 1. In addition, no other part of *Raciborski* or any part of *Shaffer* discloses this element. Furthermore, the Examiner has not shown how one of skill in the art would be motivated to modify the teachings of *Raciborski* to teach this limitation.

Additionally, neither *Raciborski* nor *Shaffer* disclose "facilitating playing of the selected audio stream" as recited in Claim 1. The Examiner argues that this element of Claim 1 is disclosed in *Raciborski* at Column 3, lines 13-16, where *Raciborski* generally discloses that the origin server decides from what content object source the client computer will download the requested object based in part on the client computer's preference information and that the object may be played during download or stored for a later time. *See* Office Action, p.3. Applicants respectfully traverse the Examiner's position. Only content object sources are chosen in *Raciborski*, not content streams. Thus, *Raciborski* fails to disclose "facilitating playing of the selected audio stream . . . ," as recited in Claim 1. *Shaffer* also fails to disclose this element.

Additionally, *Shaffer*, as a whole, teaches away from the claimed invention of Claim 1. "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). (MPEP § 2141.02). *Shaffer* teaches that its applet "may contain a predetermined audio file having music or a voice message," and there is no disclosure that the RTP stream is selected from among a group of streams. *See* Column 3, lines 60-61. Having multiple streams in *Shaffer*'s system and selecting one of those streams would in fact be contrary to an "important aspect" of *Shaffer*'s invention, to preserve server resources. *See* Column 2, lines 49-51. Providing several streams would increase the load on the network and would not enable "the music-on-hold system to use only the necessary amount of bandwidth to provide music to held callers." *See* Column 2, lines 46-48. Thus, *Shaffer* teaches away from the claimed invention of Claim 1.

In addition, *Raciborski* and *Shaffer* comprise non-analogous art. *Raciborski* relates to routing delivery of content from a network such as the Internet. *See* Column 1, lines 26-28. *Shaffer* relates to a low bandwidth consuming music-on-hold system providing music to callers placed on hold on a local area network (LAN). *See* Column 1, lines 10-14. *Raciborski*'s system does not concern itself with dynamically determining bandwidth requirements and using only the necessary amount of bandwidth to provide content, which is an "important aspect" of *Shaffer*'s invention. *See Shaffer*, Column 2, lines 42-48. *Shaffer*'s LAN system does not concern itself with improving QOS when downloading a content object from a network such as the Internet. *See Raciborski*, Column 2, lines 55-57; *Shaffer*, Column 2, lines 37-40. Thus, *Raciborski* deals with improving QOS in a wide network and *Shaffer* deals with preserving bandwidth in a local network. *See Raciborski*, Column 2, lines 55-57; *Shaffer*, Column 2, lines 37-40. The references do not remotely deal with the same problems.

For at least these reasons, Applicants respectfully submit that Claim 1, as well as the claims that depend from Claim 1, are in condition for allowance. For reasons analogous to those provided with respect to Claim 1, Applicants respectfully submit that independent Claims 19 and 37, as well as the claims that depend from Claims 19 and 37, are in condition for allowance. Therefore, reconsideration and favorable action are requested. In addition to depending from an allowable independent claim, at least Claims 5, 11, 18, 23, 29, 36, 41, 47, and 54 also recite additional elements not disclosed in *Raciborski* and *Shaffer*.

Claim 5 recites that "the quality value for an audio stream comprises a current value for the audio stream determined based on real-time performance of the audio stream at a point at least proximate to a device playing the selected audio stream to the call on hold." The Examiner, citing Column 13, line 61 - Column 14, line 7 of *Raciborski*, argues that *Raciborski* discloses "periodically taking new measurements of the performance and reevaluating the quality value. At the time of the measurement the values are based upon current values of real-time performance. It is also disclosed that the analysis is performed from the client computer perspective." Office Action, p. 4-5. Applicants respectfully traverse the Examiner's position. The "streams" being tested in *Raciborski* are test "streams" used before any request for information by a client computer and do not include the "stream" of content that is eventually downloaded by the client computer (i.e., the stream that is played

to a call on hold). *See* Column 15, lines 55-57; Column 18, lines 28-34; Column 19, lines 18-24 and 36-54; Column 24, lines 1-4. Thus, *Raciborski* does not disclose, “wherein the quality value for an audio stream comprises a current value for the audio stream determined based on real-time performance of the audio stream at a point at least proximate to a device playing the selected audio stream to the call on hold,” as recited in Claim 5.

Claim 11 recites “wherein facilitating playing of the selected audio stream to a call on hold comprises communicating at least an identifier of the selected audio stream to an endpoint handling the call on hold.” The Examiner, citing Column 16, lines 12-18 of *Raciborski*, argues that *Raciborski* discloses “using the preference and quality information to redirect the endpoint handling the call (client computer) to the appropriate audio stream Redirection includes identifying the stream and its location.” Office Action, p. 6. Applicants respectfully traverse the Examiner’s position. In the passage cited by the Examiner, *Raciborski*’s origin server redirects the client computer to the source of the content object, not to a particular “stream,” as argued by the Examiner. Redirecting a client computer to a content source does not disclose “communicating at least an identifier of the selected audio stream to an endpoint handling the call on hold,” as recited in Claim 11.

Claim 18 recites “identifying a poor quality audio stream based on the quality value for the audio stream; and communicating an identifier of the poor quality stream to an upstream router for discard of the poor quality audio stream.” The Examiner, citing Column 24, lines 22-29 of *Raciborski*, argues that *Raciborski* discloses “identifying high quality audio streams for further testing Therefore, poor quality audio streams are also identified and disqualified from further testing. This decision must be communicated upstream in order to remove the poor streams from the list.” Office Action, p. 7. Applicants respectfully traverse the Examiner’s position. In the passage cited by the Examiner, *Raciborski* discloses that its client computer may re-evaluate the path QOSs of the content sources included in its preference information and/or new content sources in a more efficient way. *See* Column 24, lines 22-46. After the client computer re-evaluates these QOS paths, the client computer updates its preference information by storing a pre-determined number of the content sources as preference information. *See* Column 24, lines 1-10. However, *Raciborski* does not disclose identifying any “poor quality stream,” much less “communicating an identifier of the poor quality stream to an upstream router for discard of the poor quality audio stream.”

Identifying preferred sources does not imply specifically identifying low quality streams or doing anything with these streams. Thus, *Raciborski* fails to disclose each and every element of Claim 18.

For at least these reasons, in addition to those provided with reference to independent Claim 1, Applicants respectfully submit that Claims 5, 11, and 18 are in condition for allowance. For reasons analogous to those provided with respect to Claims 5, 11, and 18, in addition to those provided with reference to independent Claims 19 and 37, Applicants respectfully submit that Claims 23, 29 and 36 and Claims 41, 47 and 54, respectfully, are in condition for allowance. Therefore, reconsideration and favorable action are requested.

Independent Claim 55 recites the following:

A method for providing music-on-hold at an endpoint of an Internet Protocol network, comprising:
receiving a plurality of music-on-hold streams;
repetitively determining a real-time quality value for each of the audio streams based on at least one of packet jitter and packet loss for the music-on-hold stream;
in response to at least a call being placed on hold, selecting one of the music-on-hold streams as a high quality stream based on the real-time quality values for the music-on-hold streams; and
playing the high quality stream to the call on hold.

Claim 55 is allowable because neither *Raciborski* nor *Shaffer* disclose, teach, or suggest each and every one of the elements of Claim 55. For reasons analogous to those provided with respect to Claim 1, Applicants respectfully submit that independent Claim 55 is in condition for allowance. In addition, Claim 55 recites additional elements not disclosed by *Raciborski* and *Shaffer*. For example, Claim 55 recites “in response to at least a call being placed on hold, selecting one of the music-on-hold streams” The Examiner, citing *Shaffer*, Column 1, line 65 - Column 2, line 2, argues that “Shaffer discloses playing a music-on-hold stream to a call in response to the call being placed on hold.” However, *Shaffer* only refers to one RTP stream, not to selecting *one of the plurality of* music-on-hold streams. Furthermore, as discussed above, having more than one RTP stream to select from in *Shaffer* would defeat *Shaffer*’s purpose of preserving server resources. See Column 2, lines 49-51. Thus, neither *Shaffer* nor, as the Examiner notes, *Raciborski* disclose “in response to at least a call being placed on hold, selecting one of the music-on-hold streams” as recited in Claim 55. For

at least these reasons, Applicants respectfully submit that Claim 55 is in condition for allowance. Therefore, reconsideration and favorable action are requested.

The Examiner rejects Claims 6, 8, 24, 26, 42, and 44 under 35 U.S.C. §103(a) as being unpatentable over *Raciborski* in view of *Shaffer*, and further in view of U.S. Patent No. 6,690,651 to Lamarque, III et al. ("*Lamarque*"). Claims 6, 8, 24, 26, 42, and 44 depend from one of allowable Claims 1, 19, and 37. Thus, they are allowable at least because they depend from an allowable independent claim. In addition to depending from an allowable independent claim, by way of example, Claims 6, 24, and 42 also recite additional elements not disclosed by *Raciborski*, *Shaffer*, and *Lamarque*.

Claim 6 recites that "the selected audio stream comprises a first audio stream, further comprising: in response to at least degradation of the first audio stream below a threshold, selecting a second audio stream based on a then current quality value for each of the remaining audio streams; and facilitating playing of the second audio stream." The Examiner, citing Column 4, lines 5-7, argues that "*Lamarque* discloses selecting a new path if the current path falls below a quality threshold." Applicants respectfully traverse the Examiner's position. In the cited passage, *Lamarque* discloses that if the quality of service of a call falls below a threshold set for a subscriber, then the subscriber may be presented with the ability to transfer or reroute the call to another destination or path. *See* Column 3, line 52 - Column 4, line 18. Transferring a call to another destination or path is not "selecting a second audio stream based on a then current quality value for each of the remaining audio streams," as recited in Claim 6. Furthermore, the transfer in *Lamarque* to another path is not selected based on a "then current quality value" of that other path but only on the reduced quality of service of the first path. *See* Column 3, line 52 - Column 4, line 18. For at least these reasons, in addition to those provided above with reference independent Claim 1, Applicants respectfully submit that Claim 6, as well as Claim 8 that depends from Claim 6, are in condition for allowance. For reasons analogous to those provided with respect to Claim 6, in addition to those provided with reference to independent Claims 19 and 37, Applicants respectfully submit that Claims 24 and 42 are in condition for allowance. Therefore, reconsideration and favorable action are requested.

The Examiner rejects Claims 14, 32, and 50 under 35 U.S.C. §103(a) as being unpatentable over *Raciborski* in view of *Shaffer*, further in view of *Lamarque*, and further in view of U.S. Patent No. 6,853,719 to McCormack, et al. (“*McCormack*”). Claims 14, 32, and 50 depend from one of allowable Claims 1, 19, and 37. Thus, they are allowable at least because they depend from an allowable independent claim. In addition to depending from an allowable independent claim, by way of example, these claims also recite additional elements not disclosed by *Raciborski*, *Shaffer*, *Lamarque*, and *McCormack*.

Claim 14 recites “selecting a locally stored audio file in response to at least the quality values for the audio streams being below a threshold value; and facilitating playing of the stored audio file to a call on hold.” The Examiner, citing Column 2, lines 32-36, argues that “McCormack discloses selecting between a remote or local music-on-hold server.” Office Action, p. 11. However, *McCormack* does not disclose making this selection “in response to at least the quality values for the audio streams being below a threshold value,” as recited in Claim 14. Furthermore, *Lamarque* also does not disclose this half of the claim element because *Lamarque*, as discussed above, only describes rerouting one call if the quality of service of that *one* call (not multiple streams) falls below a set threshold. See Column 3, line 52 - Column 4, line 18. Thus, the *Raciborski*, *Shaffer*, *Lamarque*, and *McCormack* combination fails to disclose each and every element of Claim 1.

Having read the Applicant’s disclosure, the Examiner should not use hindsight to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q. 2d 1780 (Fed. Cir. 1992). Applicants respectfully request that the Examiner refrain from engaging in hindsight reconstruction. Rejecting Claim 14 with a combination of four very different references appears to be the result of this improper practice.

For at least these reasons, in addition to those provided above with reference to independent Claim 1, Applicants respectfully submit that Claim 14 is in condition for allowance. For reasons analogous to those provided with respect to Claim 14, in addition to those provided with reference to independent Claims 19 and 37, Applicants respectfully

submit that Claims 32 and 50 are in condition for allowance. Therefore, reconsideration and favorable action are requested.

CONCLUSION

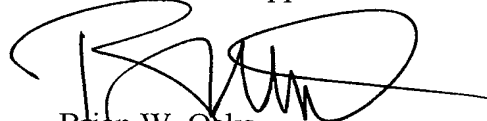
Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all the pending claims.

If the present application is not allowed and/or if one or more of the rejections is maintained, Applicants hereby request a telephone conference with the Examiner and further requests that the Examiner contact the undersigned attorney to schedule the telephone conference.

Applicants believe no fees are due; however, the Commissioner is hereby authorized to charge any other fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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